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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,993	09/09/2004	Edwin Nun	258014US0PCT	1951

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

O HERN, BRENT T

ART UNIT	PAPER NUMBER
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1772

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/30/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/30/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

C

Office Action Summary	Application No. 10/506,993	Applicant(s) NUN ET AL.	
	Examiner Brent T. O'Hern	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 March 2007 has been entered.

Claims

2. Claims 1-20 are pending with claims 1-10 withdrawn and 17-20 new.

WITHDRAWN REJECTIONS

3. The rejection to claims 11-14 and 16 under 35 U.S.C. 102(b) as being anticipated by Huffer et al. (US 6,783,807) of record in the Office Action mailed 19 December 2007, page 2, paragraph 5, have been withdrawn due to Applicant's amendment in the Paper filed 28 March 2007.

4. The rejection to claim 15 under 35 U.S.C. 103(a) as being unpatentable over Huffer et al. (US 6,783,807) in view of Baumann et al. (US 6,800,354) of record in the Office Action mailed 19 December 2007, page 4, paragraph 6, have been withdrawn due to Applicant's amendment in the Paper filed 28 March 2007.

NEW REJECTIONS

Claim Rejections - 35 USC § 102

5. Claims 11-14 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Huffer et al. (US 6,783,807).

Regarding claim 11, Huffer ('807) teaches a molding comprising at least one surface having self-cleaning properties (*col. 3, ll. 53-55, col. 6, ll. 1-7, col. 4, ll. 20-22 and col. 9, ll. 57-61*) and surface structures with elevations (*col. 3, ll. 65-66*).

The phrases **“formed by directly embedding microparticles into the molding”** in claim 11, lines 2-3 and **“wherein the molding is produced by: accreting primary particles to form microparticles, wherein said microparticles have hydrophobic properties and said microparticles comprise agglomerates or aggregates of from 0.2 to 100 μm , applying the microparticles to the inner surfaces of a mold, molding a molding composition, wherein the molding composition comprises at least one material comprising organic compounds and said molding composition is in softened or molten form, and thermally shaping the molding composition in the mold, and solidifying the molding composition to obtain the molding, wherein not more than 90% of the diameter of at least 50% of the microparticles are impressed into the surface of the molding which has not yet solidified, said microparticles are firmly held by the molding to anchor said microparticles into the molding after the molding is solidified, said molding has elevations formed by the microparticles and said molding has at least one surface having self-cleaning properties”** in claim 11, lines 3-19 are process

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limitations in product claims and hence not given any patentable weight since patentability of a product does not depend on its method of production (see *MPEP* § 2173.05(p)).

Regarding claims 12 and 18, Huffer ('807) teaches a molding wherein the elevations have an average height of from 20 nm to 25 μm (*col. 3, ll. 65-66*) and an average separation of from 20 nm to 25 μm (*col. 3, ll. 66-67*).

Regarding claim 13, Huffer ('807) teaches a molding wherein the elevations have an average height of from 50 nm to 4 μm (*col. 3, ll. 65-66*) and/or an average separation of from 50 nm to 4 μm (*col. 3, ll. 66-67*).

Regarding claims 14 and 19, Huffer ('807) teaches a molding wherein the molding comprises microparticles and the microparticles are selected from the group consisting particles of silicates, minerals, metal oxides, metal powders, silicas, and mixtures thereof (*col. 4, ll. 6-12*).

Regarding claim 16, Huffer ('807) teaches a molding wherein the molding is a three-dimensional article selected from the group consisting of vessels, bottles, storage vessels, drums, measuring beakers, tanks and discharge aids (*col. 8, ll. 30-40*).

Regarding claim 17, Huffer ('807) teaches a molding comprising at least one surface having self-cleaning properties and surface structures with elevations (*col. 3, ll. 65-66*), wherein the molding comprises at least one material comprising organic compounds and the molding is capable of being in softened or molten form and of being thermally shaped (*See col. 4, ll. 25-40 and col. 5, ll. 87-24. Furthermore, all materials are capable of being softened and thermally shaped to at least a minimal degree.*).

The phrase “**wherein the surface structures are formed by hydrophobic microparticles embedded directly into the molding**” in claim 17, lines 4-5 are **process limitations** in a product claim and hence not given any patentable weight since patentability of a product does not depend on its method of production (see *MPEP* § 2173.05(p)).

Claim Rejections - 35 USC § 103

6. Claims 15 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Huffer et al. (US 6,783,807) in view of Baumann et al. (US 6,800,354).

Huffer ('807) teaches the product discussed above, however, fails to expressly disclose wherein the product comprises impressed particles and the impressed particles are anchored with from 10 to 90% of their average particle diameter within the surface of the product.

However, Baumann (354) teaches self-cleaning particles on a substrate with a height of 0.5 to 15 μm (*col. 5, ll. 13-17*) which are anchored (*col. 4, ll. 23-27, embedded, thus anchored*), forming a layer with thickness of 5-1,000 nm (*col. 8, ll. 29-39*), which would obviously be anchored by at least 10% of the particle diameter for the purpose of providing a self-cleaning article (*col. 2, ll. 66-67*).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to modify Huffer's ('807) structure with a self-cleaning surface wherein the particles are embedded by at least 10% of their diameter as taught by Baumann (354) in order to provide an article with a self-cleaning surface.

ANSWERS TO APPLICANT'S ARGUMENTS

7. In response to Applicant's argument (*p. 7, para. 5 to p. 8, para. 3 of Applicant's Paper filed 7 November 2006*) that Huffer ('807) and Baumann ('354) do not teach directly embedding microparticles into the molding, it is noted as discussed above that patentability of Applicant's product is based on the claimed structural limitations of Applicant's product, not the process of making, thus said process limitations are not given any patentable weight.

8. In response to Applicant's argument (*p. 7, para. 5 to p. 8, para. 3 of Applicant's Paper filed 7 November 2006*) that Huffer ('807) and Baumann ('354) do not teach capable of being softened or molten form and cable of thermal shaping, it is noted as discussed above that all materials are capable of being softened and thermally shaped to at least a minimal degree, thus, said limitation is not distinguishable over the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571) 272-0496. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-2172. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BTH

Brent T O'Hern
Examiner
Art Unit 1772
April 16, 2007


NASSER AHMAD
PRIMARY EXAMINER 4/23/07